

BE (Hons) Electrical and Electronic Engineering (AK3751)

2027 Study Plan (Refresh)

This refreshed Study Plan applies to students who began the BE Hons programme in **2024 or later**.

If you started the programme before 2024, please refer to the old structure Study Plan with the grey shading.

Notes:

- Once you have made your selections, go to MyAUT to complete your enrolment.
- S1 = Semester 1, S2 = Semester 2
- Pre-requisite papers are shown in brackets after each paper. **Please ensure you have completed all necessary pre-requisite courses before you enrol for a course.**
- For enrolment queries or issues, please email your Academic Administrator at: engineer@aut.ac.nz
- The **course level** is the first digit of the numeric part of the course code (e.g., ENGE500 is a level 5 course).

YEAR 1 - for students who started 2024 onwards

ENGE501	Engineering Mathematics I	S1 / S2	ENGE500	Introduction to Sustainable Engineering Design	S1 / S2
ENGE503	Engineering Mechanics	S1 / S2	DIGD507	Mahitahi: Collaborative Practices	S1 / S2
ENGE504	Electrical Engineering Fundamentals	S1 / S2	COMP500	Programming Concepts and Techniques	S1 / S2
ENME502	Engineering Materials I	S1 / S2	ENGE601	Engineering Mathematics II (ENGE501)	S1 / S2

YEAR 2

ENEL604	Electrical Power Engineering (ENGE504)	S1	ENGE600	Engineering Management I	S2
ENEL608	Intro to Microcontrollers (COMP500)	S1	ENGE603	Renewable Energy: Generation, Storage and Utilisation (ENGE504)	S2
ENEL619	Signals, Circuits and Systems (ENGE504, ENGE601)	S1	ENEL602	Electronics Project (ENGE504, ENEL608)	S2
ENGE702	Engineering Mathematics III (ENGE601)	S1 / S2	ENEL606	Analogue and Digital Systems (ENGE504)	S2

YEAR 3 - students must have completed all Year 1 papers

ENEL702	Instrumentation and Control Systems (ENEL606, ENGE601)	S1	ENEL700	Communication Engineering (ENEL606)	S2
ENEL712	Embedded System Design (ENEL608, ENEL606)	S1	ENEL709	Engineering Design and Innovation Project (ENEL602)	S2
ENEL713	Power System Analysis and Design (ENEL604)	S1	ENEL711	Electrical Machines, Power Electronics, and Drives (ENEL602)	S2
ENGE800	Engineering Numerical Techniques and Statistical Analysis (ENGE702)	S1	ENGE707	Data Engineering and AI (COMP500)	S2

YEAR 4 - students must have completed all Year 1 and Year 2 papers

ENGE891	Final Year Research Project (Part A)	S1 / S2	ENGE892	Final Year Research Project (Part B)	S1 / S2
General Elective (GE)*	Any level 5 paper or above within the university	S1 / S2	ENGE803	Innovation and Research Management	S2
Level 8 Elective	Choose from Level 8 Electives listed on the back page	S1	Level 8 Elective	Choose from Level 8 Electives listed on the back page	S2
Level 8 Elective	Choose from Level 8 Electives listed on the back page	S1	Level 8 Elective	Choose from Level 8 Electives listed on the back page	S2

Choose four Level 8 electives from below (subject to change)					
ENEL800	Wireless Systems (ENEL700)	S1	ENEL810	Advanced Control (ENEL809)	S2
ENEL804	Sustainable Energy Systems	S1	ENEL813	Power Systems Quality Management (ENEL711)	S2
ENEL809	Digital Control (ENEL702)	S1	ENSE808	Digital Systems Design (ENEL712)	S2
ENSE807	Digital Signal Processing (ENEL712)	S1	ENSE810	Embedded Software Engineering (ENEL712)	S2
			ENSE814	Wireless Sensor-Actuator Networks (requires approval from Major Leader)	S2
			ENGE810	Special Topics – Autonomous Mobile Robotics (must take ENME703 as General Elective)	S2

* A **General Elective** is any Level 5 paper or above within the university. Students can choose a General Elective from the link below and get approval from the respective school where the course belongs to, before informing us to be enrolled – <https://www.aut.ac.nz/study/study-options/elective-courses>

Plus: completion of **ENGE888 Engineering Work Experience** (enrol in either S1 or S2)

- No fees or credits are attached to this course
- Must be completed in order to graduate
- Send the **approval form** to the Work Experience Coordinator (hamid.gholamhosseini@aut.ac.nz) for your work to be considered/approved prior to commencement of work
- Complete 800 hours of work
- Submit a 4500-5000 word report through Canvas (email engineer@aut.ac.nz when you are ready to submit the report so you can be enrolled or if you have any questions)

Note: The total time from first enrolment in a four-year bachelor's degree with honours until the completion of all requirements must not exceed **eight years**.